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FOREST PEST MANAGEMENT

Technology Update

Southern Region, USDA Forest Service, 1720 Peachtree Rd., N.W., Atlanta, Ga. 30367

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Southern Pine Beetle Fact Sheet
Number 38

NF RISK -- A Computer Program

Purpose

NF Risk is a computer program designed to help rate the relative risk of pine stands to southern pine beetle (SPB) attack on national forest lands.

Description

The model is based on readily available resource data from the Continuous Inventory of Stand Conditions (CISC). This inventory is an automatic data processing system that continually reflects an up-to-date description of timber stand conditions on national forests in the South.

The rating system was developed for the Kisatchie National Forest in Louisiana. The system also applies to the National Forests in Texas and in Mississippi. With some modification, the system could be used on any other national forest in the South. This tool can help forest managers select stands to thin or regenerate during a 10-year planning period.

Inputs

Five data fields from CISC for rating stands: (I) forest type, (2) stand condition class, (3) method of cut, (4) operability, and (5) site index.

Outputs

Computer printouts are generated that classify risk-rated stands as high, medium, or low risk.

A table is produced that shows the number of acres, number of stands, and percentage of acres in each of the three risk classes. This information is used to update the CISC data file so that each stand in each compartment will eventually have a risk rating.

Accessibility

The computer program for application of the stand risk rating system is online at the Fort Collins Computer Center.

References

Three publications cover the philosophy and development of the model and details of its use and application:

Lorio, P.L., Jr. Developing stand risk classes for the southern pine beetle. Research Paper SO-144. New Orleans: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; I978. 9 p.

Lorio, Peter L. Jr; Mason, Garland N.; Autry, Gordon L. Stand risk rating for the southern pine beetle: Integrating pest management with forest pest management. Journal of Forestry. (804): 212-214; 1982.

Lorio, P.L., Jr.; Sommers, R.A. Use of available resource data to rate stands for southern pine beetle risk. In: Hedden, R.L., et al, eds. Hazard rating systems in forest pest management. General Technical Report WO-27. Washington: U.S. Department of Agriculture, Forest Service; I98I. 169 p.

Additional Information

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